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# How Much do Health Literacy and Patient Activation Contribute to Older Adults Ability to Manage their Health?

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# Patient Activation and Health Literacy

- n Patient Activation

- q What is it?

- q How is it measured?

- n How is Patient Activation related to health literacy?

- n How are literacy and Activation related to health behaviors and health decision making?

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Chronic Care Model puts the patient on the health care team as a partner

- q **To be partner in care patients need to have the necessary:**
    - n **Knowledge**
    - n **Skills**
    - n **Confidence**
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## The ability to measure activation is important:

- n Like every other area of care---  
Measurement is first step to improvement
  - n For targeting what information/supports patients need
  - n For evaluating efforts to increase activation
  - n For evaluating the quality of care
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## Domains for Activation Measure

	...self manage	...collaborate with provider	...maintain function / prevent declines	...access appropriate and high quality care
Has the knowledge to:	■		■	
Has the skills to:	■	■	■	□
Can access emotional supports to:	■		■	
Believes patient is important in:	■	■	■	

- Identified by experts and consumers as a key component
- Identified only by experts as a key component
- Identified by experts as a key component and identified by consumers as a secondary component

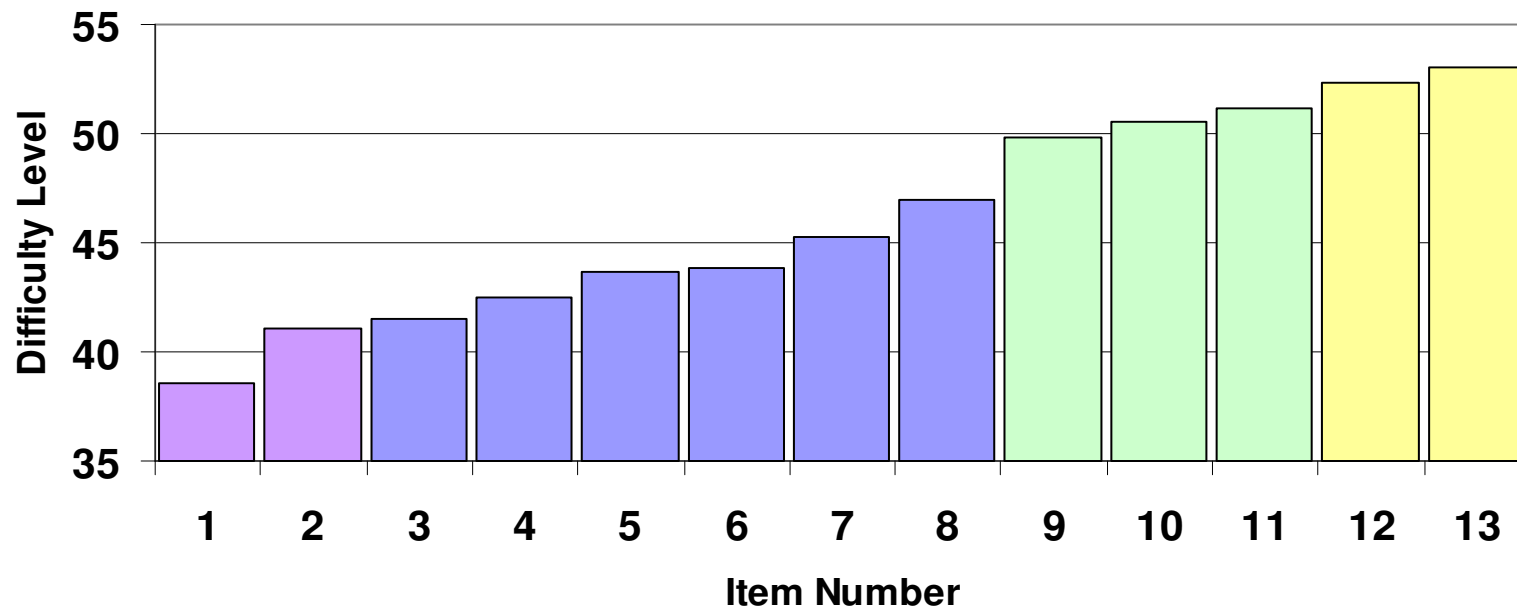
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# Used Rasch Analysis to Create PAM

- n Has strong measurement properties
    - q Interval level measurement
    - q Unidimensional
    - q Guttman-like scale
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# Patient Activation Measurement (PAM)

## Difficulty Structure of 13 Items



### 4 Stages of Activation

Does Not Yet Believe Have Active/Important Role

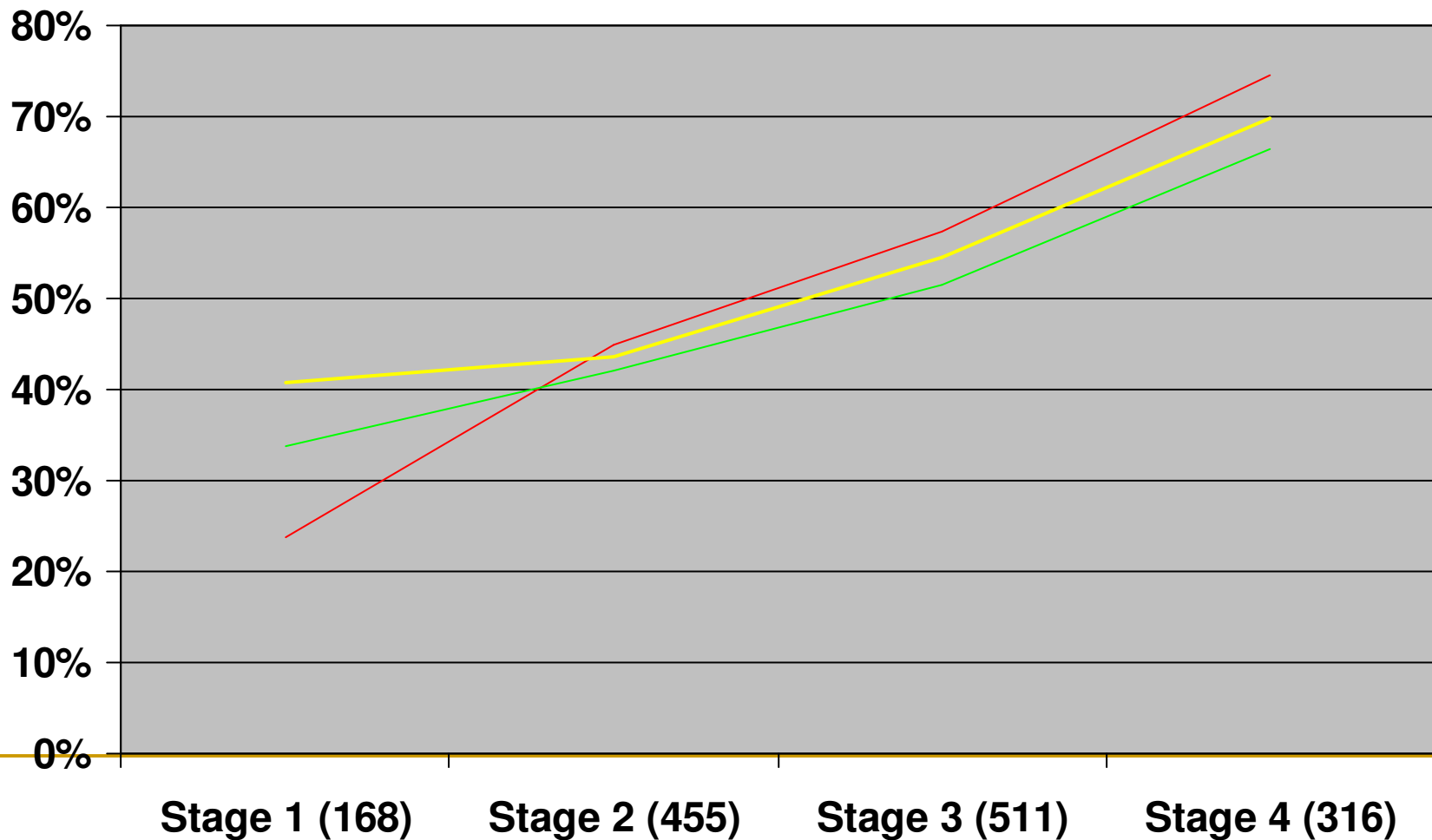
Lack Confidence and Knowledge to Take Action

Beginning to Take Action

Maintaining Behaviors Over Time

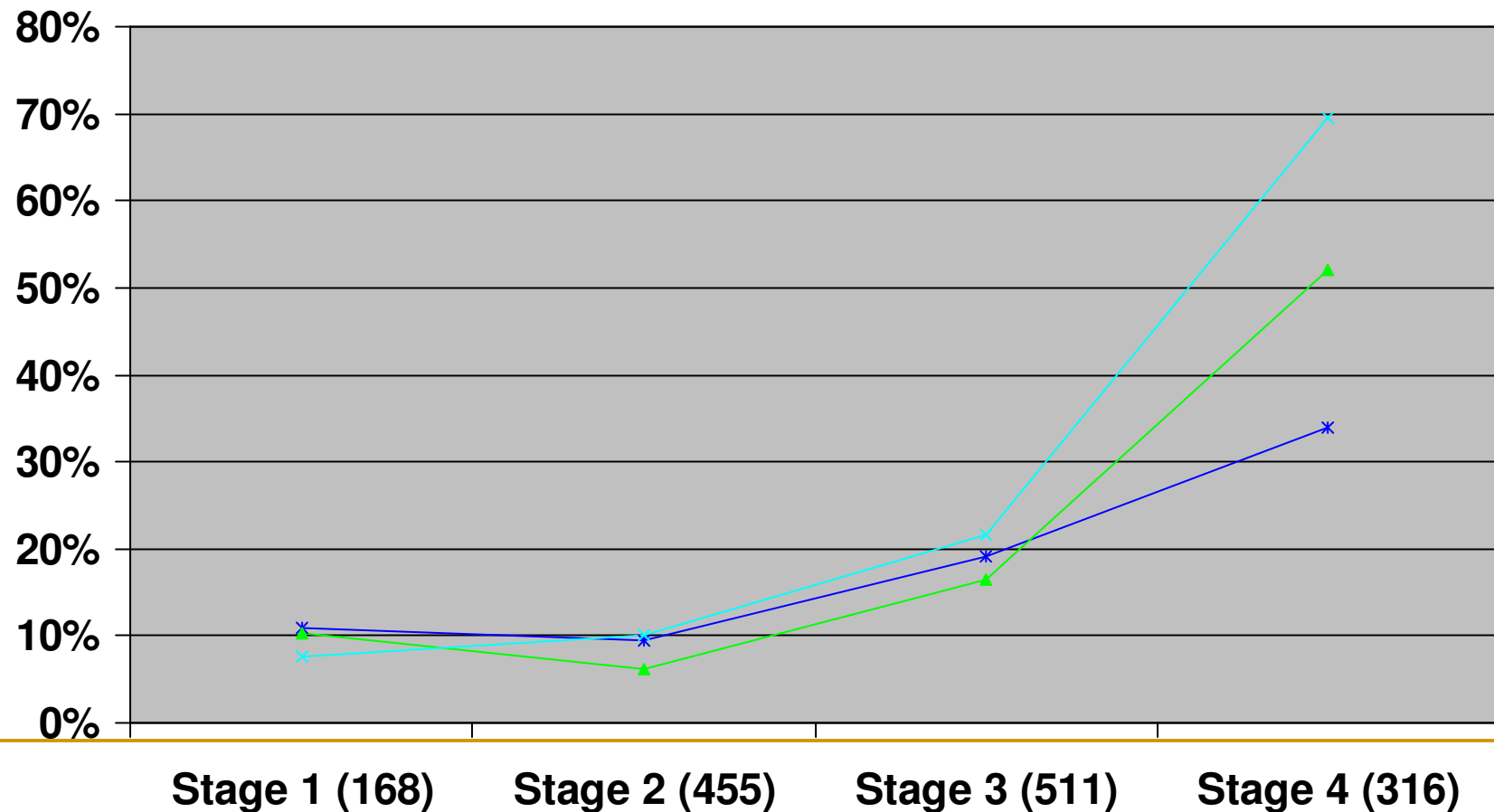
# Regular exercise, low fat diet, fruits & vegetables and PAM Stages

— Exercise — Low fat diet — 5 fruits or vegetable

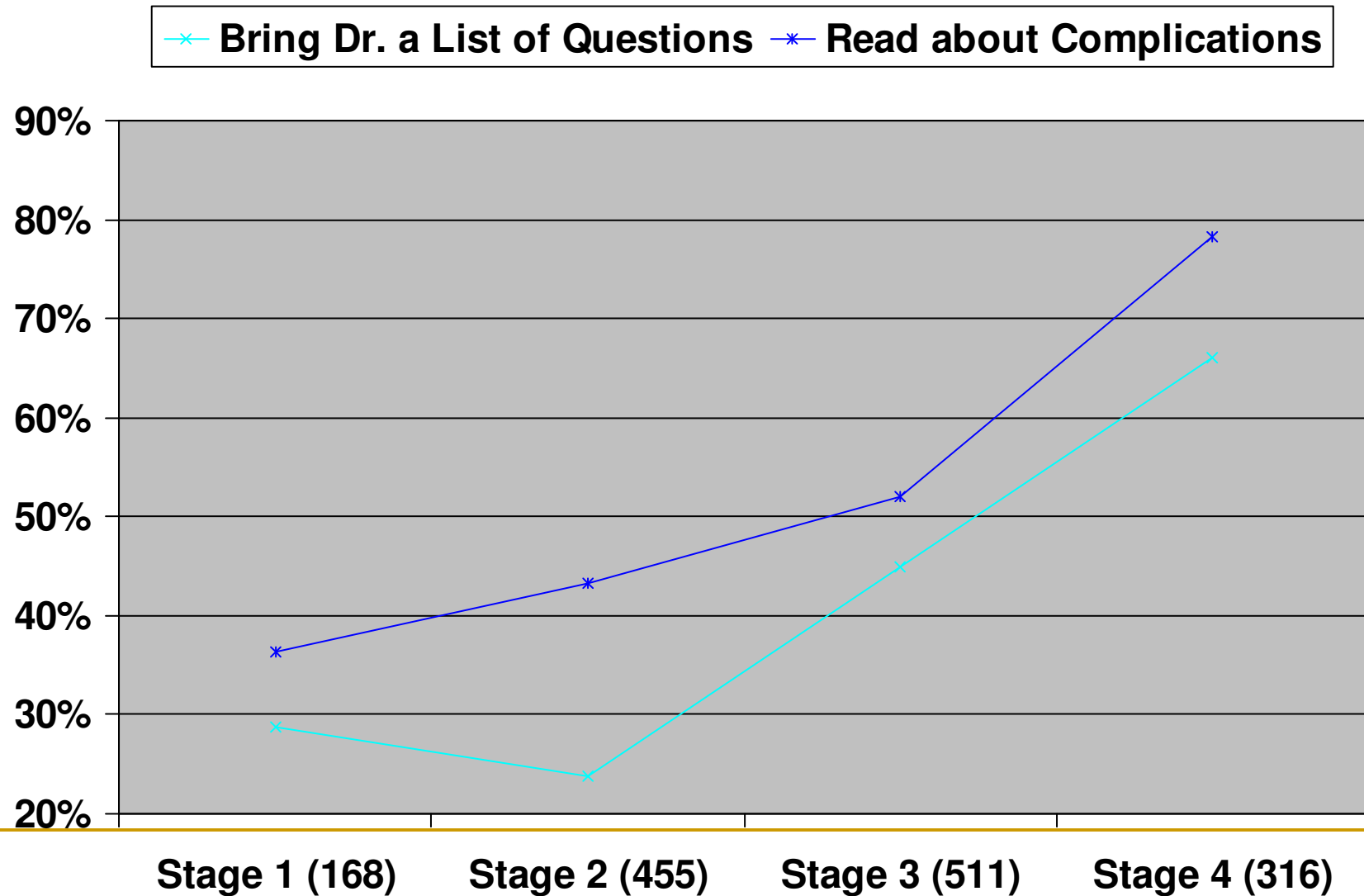


# Consumeristic Behaviors and PAM Stages

\* Bring Dr. Newspaper Information    ▲ Look up Dr.'s Qualifications  
x Persistence in Asking



# Consumeristic Behaviors & PAM Stages



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# Longitudinal Study Findings

- n Over time— Increases in Activation were followed by improvements in health behaviors
  - n Decreases in Activation were followed by declines in health behaviors
    - q Diet
    - q Exercise
    - q Weight management
    - q Consumeristic behaviors
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How much does literacy vs patient activation explain differences in health behaviors?

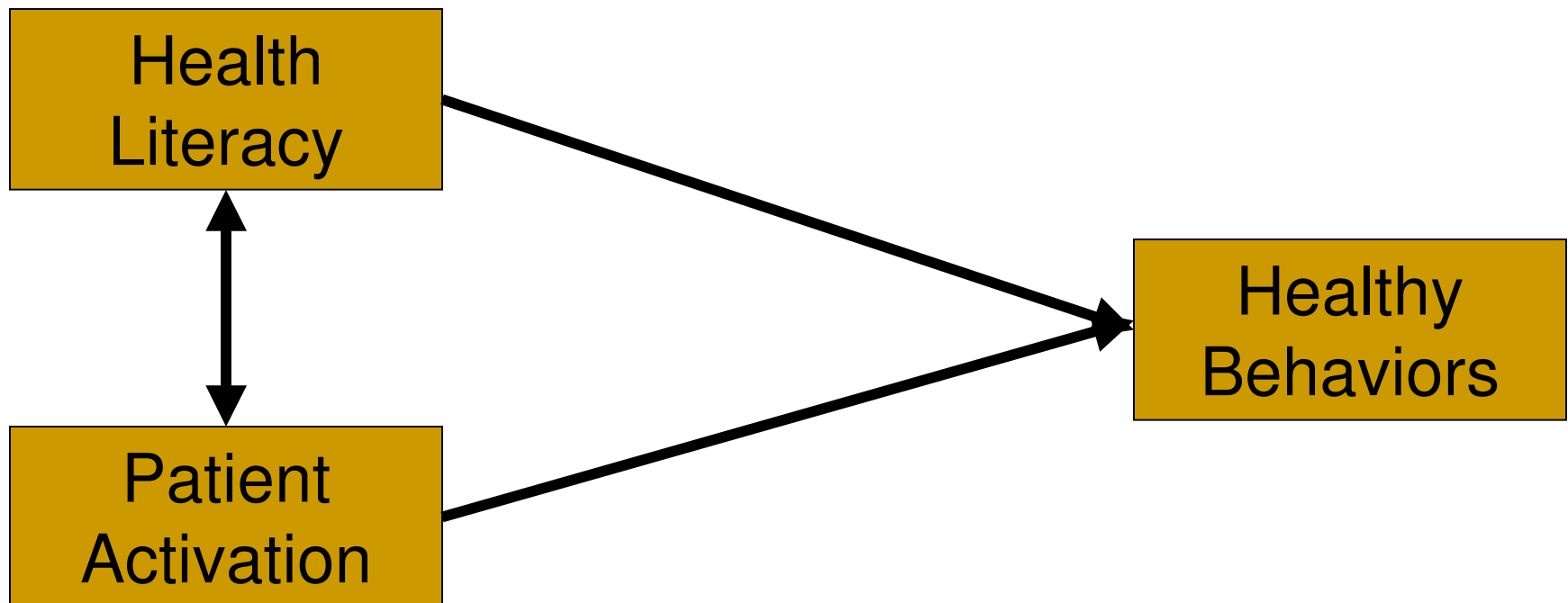
One hypothesis:



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How much does literacy vs patient activation explain differences in health behaviors?

2<sup>nd</sup> Hypothesis:



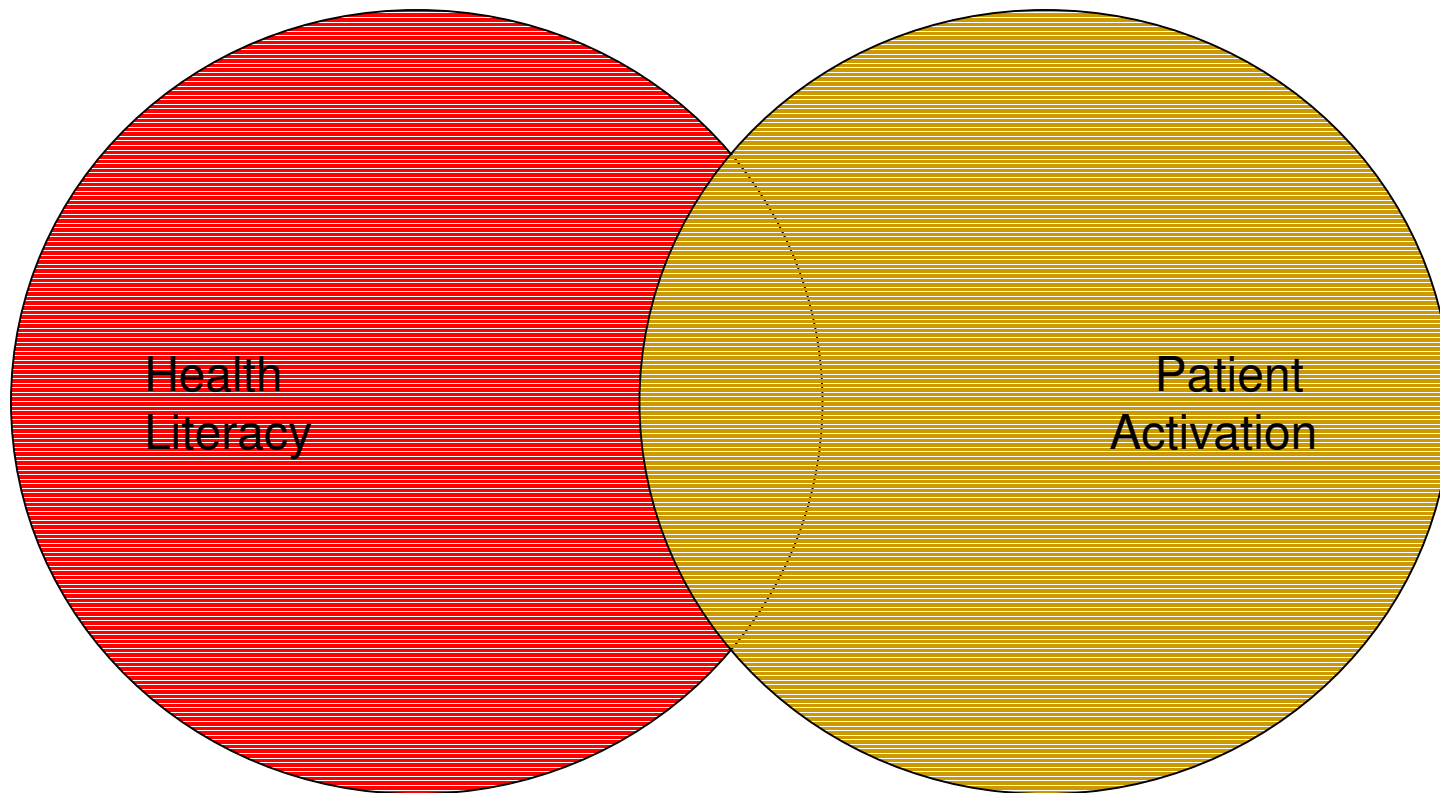
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Examined the relative contribution of health literacy and activation to health behaviors, consumeristic behaviors, and to making Medicare decisions.

- n Among 65+ population (N=293)
  - n Measured health literacy using S-TOHFLA
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# Health Literacy and Activation are Related, but are not the same



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Correlation = .2,  $p < .001$ , r-square = .035

# How Much does Patient Activation and Health Literacy Explain Behaviors?

Behaviors		Amount of variation accounted for
Exercise regularly	<b>Patient Activation***</b> Health Literacy	7%
Low fat diet	<b>Patient Activation**</b> Health Literacy	10%
Eat 5 fruits & vegetables per day	<b>Patient Activation***</b> Health Literacy	11%
Know what Cholesterol level doctor wants me to have	<b>Patient Activation**</b> <b>Health Literacy**</b>	9% 4%

Adj for education and age, \*\* p < .01, \*\*\* p < .001

# How Much do Patient Activation and Health Literacy Explain Behaviors?

Behaviors		Amount of variation accounted for
Take meds as recommended	Patient Activation*** Health Literacy	12%
Keep diary of BP readings	Patient Activation*** Health Literacy	8%
Know what BP doctor wants me to have	Patient Activation*** Health Literacy	12%
Exercise to manage arthritis	Patient Activation*** Health Literacy*	5% 7%

Adj for education and age, \*\*  $p < .01$ , \*\*\*  $p < .001$

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# Confidence in decision Medicare Decisions

- n I prefer not to have the responsibility for making decisions about my Medicare
  - n When it comes to making Medicare choices, I prefer to have someone decide for me
  - n I have difficulty understanding the information about Medicare coverage
  - n I am more likely to make a wrong choice if I have lots of different options to choose from.
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## CHOOSE AMONG FIVE PLANS

Below is the information about how five plans differ (in terms of member ratings and costs). Use the information in this table to pick the health plans you are most likely to enroll in.

	<u>Member ratings of how well doctors in the plan communicate</u>	<u>Overall member ratings of the plan</u>	<u>Premium cost per month</u>	<u>Co-pay per office visit</u>	<u>Co-pay per prescription</u>
Plan C	75	76	\$75	\$8	\$8
Plan D	74	72	\$100	\$10	\$8
Plan E	83	85	\$75	\$8	\$8
Plan F	73	71	\$100	\$10	\$10
Plan G	80	78	\$75	\$8	\$8

1. Please indicate the health plan you'd be most likely to enroll in below. Put an "X" in the box next to your first choice – the plan you are most likely to pick.

- Plan C     
  Plan D     
  Plan E     
  Plan F     
  Plan G

2. Please indicate your second choice. Put an "X" in the box next to your second choice.

- Plan C     
  Plan D     
  Plan E     
  Plan F     
  Plan G

3. How much more do you prefer your first choice over your second choice? Please check one box below.

Very slightly prefer my  
first choice over my  
second choice

Slightly prefer my  
first choice over my  
second choice

Strongly prefer my  
first choice over my  
second choice

Very strongly prefer  
my first choice over my  
second choice

1

2

3

4

# How Much Does Patient Activation and Health Literacy Explain Decision-making?

Decisions		Amount of variation accounted for
Confidence in making Medicare choices	Patient Activation*** Health Literacy***	5% 9%
Can use comparative information to make Medicare choices	Patient Activation Health Literacy***	7%

Adj for education and age, \*\* p < .01, \*\*\* p < .001

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## Consumeristic behaviors, literacy and activation

- n Seeking out health information
  - n Bring a list of questions to doctor visit
  - n Read about side effects with new drug
  - n Is persistent in asking questions
  - n Find out qualifications when choosing doctor
  
  - n **Literacy accounts 8% of variation**
  - n **Activation accounts for 17% of variation**
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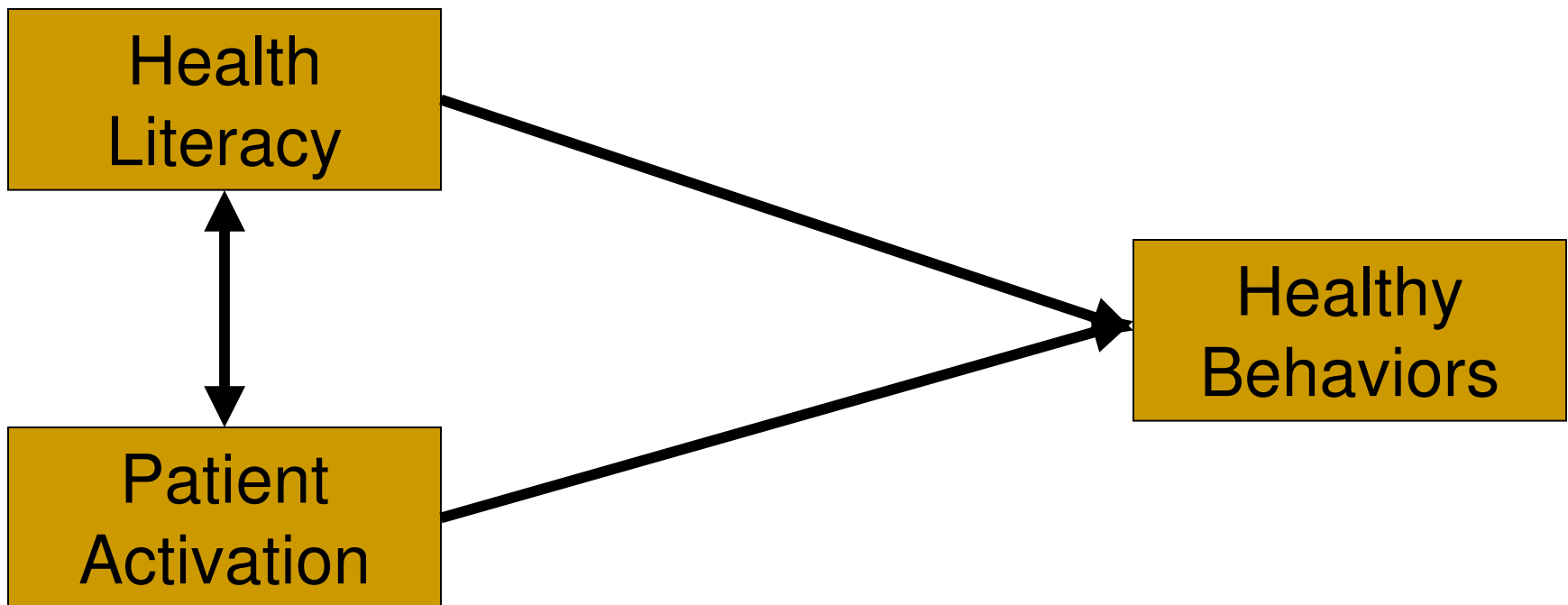
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# Literacy vs Patient Activation

- n For most of the behaviors, activation plays an equal or larger role than literacy
  - n Taking on and maintaining new behaviors requires self-efficacy as well as knowledge.
  - n Taking on new behaviors also requires a belief that this is one's "job" to manage health.
  - n Where information is the primary requirement (e.g. making Medicare choices), literacy plays a larger role.
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2<sup>nd</sup> Hypothesis:



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# Differences

- n Health literacy is necessary for understanding written information and finding and using information in choice.
  - n Becoming activated is a process of gaining knowledge, skill, and confidence.
  - n It is understanding that one must take charge of their health and that their actions will determine their health outcomes
  - n To some extent becoming activated is dependent on having some level of basic literacy skills, but it is possible to gain knowledge and through means other than written materials.
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## Implications: Tailoring based on activation and literacy

- n In activation stage 1 and 2 patients need to understand that their role is important in their outcomes. They also need to understand the basics of their condition and their treatment options.
  - n In stage 3 and 4 patients need to gain skills in acquiring and maintaining behaviors.
  - n At all stages information that is appropriate to their literacy level will help to support increasing activation
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## Bottom Line:

- n Measuring both literacy and activation are important
    - q tailor on literacy
    - q Activation can be used for tailoring, but it is also a metric that will assess if the patient is making progress in becoming a competent self manager (a diagnostic tool as well as an evaluation tool).
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